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JCS92 U.S. PTO  
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From

FULBRIGHT & JAWORSKI L.L.P.  
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09/625646  
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**PATENT APPLICATION TRANSMITTAL LETTER**

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Date of Deposit: July 27, 2000

Box PATENT APPLICATION  
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By: Elva M. Wilson

Printed/Typed Name: Elva M. Wilson

Sir:

Transmitted herewith for filing under 37 C.F.R. 1.53(b) is a(n):

- ☒ Utility  
☒ Original patent application,

Inventor(s): **David H. Tannenbaum**

For: **RECIPIENT SELECTION OF INFORMATION TO BE SUBSEQUENTLY DELIVERED**

Enclosed are:

1. ☒ 35 pages of written description, claims and abstract.
2. ☒ 4 sheets of drawings.
3. ☒ Combined Declaration and Power of Attorney.  
(a) ☒ Newly executed (original or copy)  
(b) ☐ Copy from prior application (37 CFR 1.63(d)) (for continuation/divisional if Box 5 completed)

[Note Box 5 below]

4. ☐ Incorporation by Reference (useable if Box (b) is checked).

The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 3(b), is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

5. ☐ If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:  
☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application Serial No:
6. ☐ Assignment Papers (cover sheet and document(s)) of the invention to
7. ☒ A verified statement to establish small entity status under 37 CFR 1.9 and 37 CFR 1.27.
8. ☐ Information Disclosure Statement and Form PTO-1449. ☐ Copies of IDS Citations.
9. ☐ Preliminary Amendment

Date July 26, 2000

10. ☒ Return Receipt Postcard (MPEP 503) (should be specifically itemized)
11. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
12. ☐ Other: \_\_\_\_\_

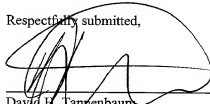
13. **Utility Fee Calculation**

CLAIMS	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULATIONS
TOTAL CLAIMS (37 C.F.R. § 1.16(c) or (i))	60	- 20 =	40	X \$ 9	= 360.00
INDEPENDENT CLAIMS (37 C.F.R. § 1.16(b) or (i))	6	- 3 =	3	X \$ 39	= 117.00
MULTIPLE DEPENDENT CLAIMS (if applicable) (37 C.F.R. § 1.16(d))				+	=
				Basic Fee	345.00
				Total of above Calculations =	822.00
Reduction by 50% for filing by small entity (Note 37 C.F.R., §§ 1.9, 1.27 & 1.28)					
* Reissue claims in excess of 20 and over original patent					
** Reissue independent claims over original patent					
				TOTAL =	822.00

**Method of Fee Payment**

14. ☒ A check in the amount of \$822 to cover the filing fee is enclosed.
15. ☐ A check in the amount of \$40.00 to cover the assignment recordal fee is enclosed.
16. ☐ Please charge my Deposit Account No. 06-2380 in the total amount of the filing fee and the assignment recordation fee, if any. **A duplicate of this Transmittal Letter is enclosed, if box checked.**
17. ☒ The Commissioner is hereby authorized to charge any deficiency in the enclosed fees under 37 C.F.R. § 1.16, or to charge any patent application processing fees under 37 C.F.R. § 1.17, or credit any overpayment, to Fulbright & Jaworski L.L.P. Deposit Account No. 06-2380.

Respectfully submitted,

  
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Date: 7/27/00

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

☒ In re application of Applicant or Patentee: David H. Tannenbaum☐ Serial No.:☒ Filed: July 27, 2000

Title: RECIPIENT SELECTION OF INFORMATION TO BE SUBSEQUENTLY DELIVERED

**STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) and 1.27(b)-INDEPENDENT INVENTOR**

As the below named inventor, I hereby state that I qualify as an independent inventor, as defined in 37 CFR 1.9(c), for purposes of paying reduced fees to the United States Patent and Trademark Office under Sections 41(a) and (b) of Title 35, United States Code, with regard to the invention described in

☒ the specification filed herewith, with title as listed above.☐ the application identified above.☐ the patent identified above.

I have not assigned, granted, conveyed or licensed, and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c), if that person had made the invention, or to any concern that would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

☒ No such person, concern, or organization exists.☐ Each such person, concern or organization is listed below.

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

☒ I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name of Inventor: David H. Tannenbaum

(Signature of Inventor)

Date

7/27/00

RECIPIENT SELECTION OF INFORMATION TO BE SUBSEQUENTLY DELIVERED

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TECHNICAL FIELD

This invention relates to the delivery of information from an information provider to an information seeker and more particularly to a system and method for allowing an information provider to find and provide information to information seekers.

## BACKGROUND

Currently, when it is desired to watch a TV program, the viewer is at the mercy of the content providers as to what that viewer watches and at what time. This is changing now that digital recorders, such as the TIVO system from Philips, can record many hours of TV programs thereby allowing viewers to delay watching broadcasts for a period of time by recording such broadcasts for later viewing. Such systems also allow users to select programs to be aired in the future and to record the selected shows. These systems also allow users to select topics and the system selects the shows that match these selected topics. Such systems work well, but suffer from the fact that they also are dependent upon the preselection of content by the content provider. If a person desires to view a certain movie, (or to view, for example, a documentary on the life of George Washington) and if that desired movie (or documentary) was not scheduled for showing within a finite time in the future, the user is not able to schedule it, except perhaps by broad topic types. In any event, the user cannot in any manner, cause movies, or programs, to be delivered which were not scheduled for delivery.

This same problem exists when users are trying to obtain information from the Internet. The user can only gain access to information if that information exists on the Internet at the time that the information is sought. However, even if the information existed on the Internet at that time, obtaining that information, even using the very sophisticated tools available today, is not trivial. For example, assume that a user desires to obtain tickets to see a certain play (or concert) or to see a certain performer when and if that play, concert or performer is next in town. Today, the user would access the Internet and look for the name of the play or the name of the performer. If there was a scheduled performance, the user might, depending upon his/her skill (and patience), find it. But if there was nothing scheduled (or contemplated) then the user would come away (usually after spending considerable time looking) with nothing.

Thus, there exists a need in the art for a system and method which allows an information seeking individual to gather information even when that information is not currently available and to have that information delivered when it becomes available.

There is also a need in the art for a system and method which allows a user to schedule the delivery of desired information at controllable times in the future using media mutually agreed upon by the requesting and providing parties.

## SUMMARY OF THE INVENTION

These and other objects, features and technical advantages are achieved by a system and method which allows the user to input to his/her own local device the information (or an abstract thereof) that he/she desires to be delivered. This information can be as simple or as complex as desired. What is important is that some other party can, from time to time, access the requested information and provide proper responses thereto.

The information, by way of example, can be the names of desired entertainment shows, or subjects, that could be delivered by way of video or live TV. The names, or abstracts, can be, by way of example, past TV shows or past TV subjects; names of biographies or travel documentaries, or they can be queries as to the dates that a certain play or performer will next be in town; or any other desired information. Thus, a person wishing to view on TV a series that aired months ago (or the first three programs of that series) will, in one embodiment, enter the desired requested information into his/her local storage medium. The storage mechanism could be a local recorder, such as the above-mentioned digital recorder, (or any other system), or it could be the user's browser on the Internet. In the preferred embodiment the information is stored on the user's local computer. In an alternate embodiment, the abstracted request is stored on one or more remote devices. The user would enter "deliver by TV over cable (or satellite, or any other desired medium)" a program or programs pertaining to the life of "George Washington". This entry could, of course, be prompted by interactive prompts. If the user had more specific information on the desired program, the user could, if he/she desires, enter such additional details.

It is important to note that the requested information can be stored locally on a TV recorder or stored on a local computer or on any other device having memory capability. The storage medium that the user selects need not be the medium to where the information is to be returned. The user may specify the return medium or the information provider may, by the nature of the content that is to be delivered or otherwise, decide how best and when to deliver the information. The return information can actually arrive using multiple media either in whole or in part. For example, the provider may send a message (using the Internet to the

user's PC or perhaps a wireless connection to the user's handheld device) indicating that a certain requested TV program will be available at a certain date on a particular channel. Then, at the proper time (or at a time negotiated between the provider and the requester) the desired information is delivered to the user over a medium different from the one used to verify or confirm the transaction, and perhaps even different from the medium over which the initial request was posted.

One important aspect of this invention is that the requested information is maintained in a location (whether local to the user or remote) such that it remains available for a period of time to anyone who is capable of providing the desired information which is controlled by the provider. Thus, instead of the user searching a massive data base (the web today) the burden falls on information providers to find those folks who need or want the information which is controlled by the provider. This system works particularly well for situations where the desired information pertains to future events, such as entertainment, or for complex situations where the user only has a vague understanding of what he/she desires. In this situation, the content owner knows much more about the subject, and, based on the abstract of the information posted, can provide the proper response.

Thus for vacation planning a person might type in the location desired and the time of year desired and request information on climate, hotel availability, restaurants, etc.. This information then would be stored (either at the user's location) or at a central site, and will be accessible for a period of time by anyone who believes they have the desired information. The return information can then be delivered without further action taken by the posting user. There could be an interactive exchange prior to downloading of the information. Today, this interaction is only possible if the user were to first go to a scientific site to post his/her desired information.

The vacation planner instead of specifying the place could have entered parameters, such as time of year, climate, desired activities (beach, golfing, shopping, hiking, sailing, etc.,) and those locations desiring to supply information would then provide either the



information or an abstract of the information, and the user (either live or via a filter program) would accept as much information as is desired.

In the context of entertainment, assume the user requested a TV program on George Washington. The requester could have specified a desired time frame or could have left it open ended. The user could also have specified the type of media over which the program was to be received or again, left it open ended. In any event, assume that a provider had the program or a series of programs pertaining to George Washington, and could deliver the content at a certain time. The provider would then notify the user that a two hour program on George Washington would be available, for example, on channel 87 at 2:00 p.m. Wed., three months hence. The user could accept this time and arrange for it to be recorded if he/she were not going to be available to watch it live. This recording could be by traditional VCR or by digital recording under processor control. In one embodiment, the recorder would be set and controlled by the provider.

Assuming that the user wanted the information sooner, one option would be to accept the information as a streamed video directly into the user's computer for recording on a CD or other portable recording device at a mutually agreeable time. The content could, of course, be delivered in any manner agreed between the sender and the user.

The foregoing has outlined rather broadly the features and technical advantages of the present invention in order that the detailed description of the invention that follows may be better understood. Additional features and advantages of the invention will be described hereinafter which form the subject of the claims of the invention. It should be appreciated by those skilled in the art that the conception and specific embodiment disclosed may be readily utilized as a basis for modifying or designing other structures for carrying out the same purposes of the present invention. It should also be realized by those skilled in the art that such equivalent constructions do not depart from the spirit and scope of the invention as set forth in the appended claims. The novel features which are believed to be characteristic of the invention, both as to its organization and method of operation, together with further objects and advantages will be better understood from the following description when

considered in connection with the accompanying figures. It is to be expressly understood, however, that each of the figures is provided for the purpose of illustration and description only and is not intended as a definition of the limits of the present invention.

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## BRIEF DESCRIPTION OF THE DRAWING

For a more complete understanding of the present invention, and the advantages thereof, reference is now made to the following descriptions taken in conjunction with the accompanying drawing, in which:

FIGURE 1 shows an embodiment of the invention using TV programs and a digital recording device at the user's location;

FIGURE 2 shows a block diagram of an information provider location;

FIGURE 3 shows an embodiment of the invention using a processor, such as a PC, at the user's location;

FIGURE 4 shows an intermediary web site adapted to accepting user's requests;

FIGURE 5 is a flow chart of one embodiment of the invention where the user stores abstracts of his/her desired information;

FIGURE 6 is a flow chart of one embodiment of the invention where an information provider searches for flags indicating that a person is seeking information and checks for matches between the information available and the information desired;

FIGURE 7 is a flow chart of one embodiment of the invention where a central control in a TV program control system receives information from various users and provides return programming in accordance with posted requests from users; and

FIGURE 8 is a flow chart of one embodiment of the invention where the central control sends requested information to a user.

## DETAILED DESCRIPTION

Turning now to FIGURE 1, there is shown system 10, which has user input device 11 which could, for example, be a remote control into the TV set or digital recorder or a computer or any other input device, such as a wireless phone. The input could be by voice command, using, for example, a voice recognition system. In the TV environment, the input could be to digital recorder 12, such as, for example, the aforementioned TIVO recorder provided by Philips. Such a device would typically have processor 1201 and memory 1202 and would operate to receive input signals from a variety of sources such as, for example inputs 1203. This data can be in analog or digital form and would be stored in a memory. In the illustrative embodiment, analog signals are digitized by recorder 12 and stored in memory 1202. Information stored in memory 1202 is made available to display 13 on command from the user, or, alternatively, under control of the information provider.

Recorder 12 is designed to interact with a remote location 14 either by phone connection, satellite or by any other mechanism, whether wireless or wireline, to exchange information pertaining to the lineup on the various channels. In this manner the user, using input device 11, may determine what is available today, tomorrow or sometime in the future. This then allows the user to select, (and set for recording if desired) certain programs which will become available over input 1203 at future times. This information is updated periodically via a connection made between recorder 12 and remote location 14, thereby assuring recorder 12 that it has the latest program information.

User 11 may specify to recorder 12, usually in the form of an interactive session between user device 11 and recorder 12, that the user desires to watch certain programs by name or type, which programs will occur in the future. Recorder 12 then monitors the information received from remote location 14 and picks out of the titles or other information made available the information desired to be recorded. Thus, for example, user 11 may decide that he or she wants to see only those programs featuring a certain artist. If that information is available from remote location 14, then recorder 12 will monitor the

information and, whenever an input program arrives having that artist, the recorder will proceed to record the program.

The problem at this point, however, is that if recorder 12 has no information pertaining to future programs, movies, artists, etc., then the interactive session between user 11 and recorder 12 will not achieve the desired result, i.e., the scheduling of a desired program.

In the embodiment shown in FIGURE 1 user 11 could input to recorder 12 the desired movie, series, concept, artist or any other desired information. This information then is provided from recorder 12 to remote location 14, for example, over the periodic connection between the two. Remote location 14 then stores the information pertaining to user 11. Location 14 then accesses data base 15, which could be local to remote location 14 or remote therefrom. This access can either be direct, via connection 1204, or it could be through Internet 100 via connections 1205, 1206.

In one embodiment, location 14 simply records the information and makes it available for remote providers to access the desired user information via Internet 100 in a manner to be discussed. Once the information is available, one or more potential providers could see that one or more users wish to see a program, for example, a program about George Washington. Accordingly, one or more of these potential providers could then either make the program available at a time in the future so that many viewers could then watch that program or the remote provider could make the program available only to user 11 over a specific channel at a specific time.

In either event, the remote provider would instruct recorder 12 at user location 10 to record that information for that user. In addition, the remote provider, assuming enough information was on file pertaining to user 11, could contact user 11 over the Internet via a separate PC, not shown in FIGURE 1, or by e-mail, wireless messaging, telephone call, message left on recorder 12, or the like. The provider would interact with user 11 to instruct user 11 as to when the program will be available, or to interact with user 11 to refine the request and to, perhaps, schedule alternate modes and/or media for delivery. It could, for

example, be most appropriate to provide the information via an alternate network directly from program data base 15 to the user's PC, for recording on a medium separate from recorder 12. In either event, the user will eventually see or have available to him/her the program that that user desires when that information becomes available.

5 As discussed, the information may be information about a past TV series, past historical events, news reports, sports, or the requested information might be about a planned future event. This could occur if user 11, for example, were to input that he/she desires all information pertaining to natural disasters in a certain location or desires information pertaining to nuclear testing activities or any other activity that he/she desires to monitor if and when that information becomes available. Under such a condition various providers of content anywhere in the world may access remote location 14 via Internet 100, or otherwise, to determine which users would like to have information pertaining to subject matter which it has available. In this manner specific information can be made available to users, such as user 11, even though that information is not available at the time user 11 asks for it, but subsequently becomes available, or subsequently is constructed based upon one or more users requesting such information.

Note that while the information request was transferred from the user's location to a remote location, the system could be constructed so that the request is maintained local to the user and potential providers would then access the user's location from time to time to monitor such requests. Certainly, user 11 could put time restraints on the request and have the request disappear or become modified after a certain period of time.

Turning now to FIGURE 2, system 20 shows information provider 21 having a search engine 22 which searches Internet 100 (or which searches directly) to other locations for requests that include within them information that provider 21 has an ability to deliver. Information provider 21 might search for requests that it does not have the ability to deliver at this time but could go out and purchase, obtain or create depending upon the perceived market for that information as determined by its continuing search for requests. This search could be, for example, into PC's or other devices located at user's premises which have on

them permission for access. In some situations, search engine 22 might only be able to search PC's which are then active on the Internet. Also, information provider 21 could be prevented from downloading any information to a user until an interactive session is held with that user such that both parties agree that what is to be provided matches what is desired to be received. Also, the parties can determine what the media will be for distribution, what the payment will be, if any, and what the various responsibilities and liabilities of the parties are with respect to the information. The information could be controlled by codes or flags and different permission levels could be established for different types of information or for different types of providers. Note that program database 15, FIGURE 1, could, if desired, include system 20.

FIGURE 3 shows system 30 which includes an alternative method of user input, such as, for example, PC 31 which allows the user to store the information requests in memory 32, which typically would be internal to PC 31, but which could be external thereto if desired. These requests, as discussed above, could be maintained local or could be sent out over Internet 100, or otherwise, to a remote site. For example, the user at PC 31 might desire tickets to a circus coming to town at some time in the future unknown to the user. The user simply records the abstracted information "circus" in memory 32 which then becomes accessible via Internet 100. Anyone having information pertaining to a circus once a circus is scheduled for the locality of PC 31 (assuming that user 31 desires the locale to be local), will scan the system looking for a seeker who has posted a desire for information pertaining to a circus.

Note that PC21 could be any type of processor and/or memory, including a telephone, pager, portable computer, personal assistants and the like.

Thus, information provider 21, (FIGURE 2) which could be the circus itself, or an intermediate web site acting on behalf of the circus, could then, by use of search engine 22, realize that the user at PC 31 desires information pertaining to the circus and requires 4 tickets to that circus. Once this information becomes available, i.e., once the circus is scheduled for the location (city) in which PC 31 is located, a message is sent to PC 31, or to a

particular alternate location, saying in effect: "The circus will be in Dallas, Texas August 15th through the 28th. Do you still desire 4 tickets?" If the posting user answers "yes," then via Internet 100, or otherwise, information provider 21 may arrange with user 31 for the delivery of and payment for the tickets. The provider may contact one of a number of ticket sources to provide the tickets, which ticket could be printed on printer 33 at the user's location, or the provider could issue the tickets directly. Note that at the time the request was made by PC 31, the circus had not been scheduled for Dallas and therefore, under known systems, the user of PC 31 would not have been able to post a general request for information pertaining to the circus.

Under the system of this invention, the user at PC 31 could put into his or her PC all of the activities that the user would like to do within the next six months, one year, or whatever, including plays, sporting events, TV programs, movies, music concerts, artists, books or any other type of activity, and the user will be contacted (if desired) at the appropriate time when the information on each activity is made available. The user could input his/her sought information from a pager, a wireless phone or a hand held processor and these requests would be stored and made available as discussed above.

FIGURE 4 shows an intermediary web site 41 which acts to collect information from many users and provides a central place for information providers, such as information provider system 20 (FIGURE 2) to search. In such a situation, search engine 22 could search the entire Internet looking for any user having a flag indicating that it has a desired request, or it could instead search the intermediary web sites, or it could do both if desired. These web sites would contain in storage 401 requests from various users. Intermediary web site 41 could then provide various services for the end user, such as the coordination of the tickets, flights for vacation, scheduling and other such activities, such as payment and filtering.

Intermediary web site 41 could record and receive information directly from a user such that the user would log onto the web site and answer a series of questions, thereby recording the information that it seeks. Alternatively, web site 41 could periodically go out and upload (using search engine 22 or otherwise) from various user sites information that the



users are seeking to receive. In either event, the centralized server, or servers, could themselves wait so that they would be accessed by information providers on an inquiry basis much like the information providers would do if they were searching for individuals who had flags set for them to review. However, alternatively, the central servers could actively go out  
5 on a periodic basis scanning the Internet for information to satisfy requests that they have received.

Once the end user posts the information, either locally or on the server, it is available continuously for either a period of time dictated by the user or dictated by common sense based upon the information requested. The request would remain available until such time as  
10 the information is provided, the program distributed, the time for the circus has come and gone, or other actions taken. This system, in operation, acts as a push system so that information is pushed down to the end user but only in response to flags or codes set by the end user.

For example, a convention could be established that information in a data base that has a certain ending, such as FLG (for flag), is always available for review by any legitimate party. Of course, it could be established that only certain parties could look at certain flags  
15 such that the message itself could give permission for certain types of providers to respond to different types of messages. Thus, the FLG message could be a message that is open to anyone, whereas a FLG1 message is open to only certain segments of information providers  
20 where FLG2 is open to other segments of providers, etc. Therefore, a hierarchy could be established that would allow an end user to determine who has access to the requests and how and by whom those requests are to be honored.

Today typically such requests are made in bulk such that a user or pager could request that all baseball scores (or weather, or stock quotes) be downloaded periodically to the end  
25 user. In typical operation, such systems are subscription services where the person subscribes to a service that provides information and the information is gathered by an intermediary the intermediary establishes what information is to be provided and the end user simply subscribes. One such service is shown at AVANTGO.COM and allows subscribers to obtain

stock quotes and other information, upon logging onto the site. The difference in the inventive system is that the user does not subscribe to preestablished data but is free to request any information, even information that is not available at the time of the request, and that information could come from any provider who has the required data and who wishes to deliver the data either free or for a charge at a particular time under a particular medium.

FIGURES 5-8 show simple flow charts which can be rearranged to run on one or more processors. These processors could be central to everyone, or could be at a provider location, FIGURE 2, or at a destination location, FIGURES 1 and 3, or at an intermediary web site, FIGURE 4. These processors could be general purpose computers or could be specialty devices, as desired by a system designer as is well known in the art.

FIGURE 5 shows box 501 which is an interactive request routine which allows a user either using a PC, or a TV with remote control, or a TV with a keyboard, or any type of input device, including voice recognition, to enter requests for information. These requests can be as broad or as specific as desired. For example, a user wishing to see a documentary on George Washington may simply just say "George Washington" or "documentary on George Washington", or if the user knew that a series had been aired sometime in the past, the user could identify the series, or could simply say a "two hour documentation of George Washington", or any additional information the user desires to add. The user, for example, could request information pertaining to future events, such as information about fires or public disasters, when they occur, or could request information on any sporting or entertainment event. Note that the user could be more specific and request scores, or statistics, on the Texas Rangers, or could request that all Stanley Cup Hockey games be received on his/her digital recorder and all final scores delivered to his/her pager. This request could be limited to local events, in which case the system might require the user to input the locality, or the system, as will be discussed, might calculate the locality based on information it has or can obtain about the user. Under control of box 502 the user could, for example, enter information, as discussed in FIGURE 1 or in FIGURE 3, pertaining to TV shows, software, music, movies, plays, concerts, artists, etc.

Box 502 stores the request and could abstract certain words as key words and also would add, if desired, flags and permission levels as to who can respond and under what conditions. For example, a flag could be that only responses from one of the major TV channels would be accepted or another flag could be that only a particular channel is acceptable for delivery. Another flag could indicate that anyone with information could respond. Some flags could identify whether the user wanted the information to come via video on the public channels or privately over the Internet or via a wireline or wireless communication through a hand held personal communicator. Note that any system can be used to grant permissions to various would be providers, including dedicating a portion of the abstracted information for such housekeeping chores.

In box 503 the local system optionally determines if it is connected to a remote location. This could be connected immediately or connectable for a period of time, such as periodically, with a phone call or connected whenever the user enters the Internet for other purposes. If there is not a connection, then box 504 does nothing.

Box 505 detects a connection to the Internet or to another remote site or detects that an information provider wishes to check for stored requests. This connection can be either accessed under control of the user by logging on, for example, to the Internet or accessed to a remote site by a phone call (wireline or wireless) being placed by the unit or simply a permanent connection which is available for access by anyone looking for request flags. Box 505 could be set to access the Internet (or some other location) periodically.

Box 506 makes a determination as to whether a flag is set in the user's data. If there is no flag set, then no data will be read, box 507.

If a flag has been set, however, then box 508 (if this feature is active) begins the permission level checking to determine if the permission level of the potential information provider matches the permission level assigned to the stored requests. If there is a match in levels, box 509 detects that match and box 511 determines whether all of the matched data is to be transferred to a remote site or is to remain stored locally. If the information is to be transferred, box 512 attends to the transfer and box 513 ends the transmission. However, if

the information was not to be transferred, then box 514 allows the remote site, again once permission has been granted, to obtain the stored requests which match the permissions.

Box 515, which typically would be activated at the remote site, but which could in actuality be programmed to occur locally, determines whether there is information to return to the user. If there is such information, then if desired an interactive session can be controlled under box 517. The user can be on line to answer questions live. More typically, the user would have a local program to screen permission levels which would interact automatically with the remote site to determine when the program information will be delivered, under what media it would be delivered, and would negotiate any other required parameters, such as cost, liabilities, rights of the end-user and such. If it is determined during the interactive session that a download of data will occur, box 519 controls that download such that both parties are in agreement as to what, when, how and where that transmission will occur. At box 520 the session is ended.

Note that if desired, a filter, or set of filters, could be used, as in box 518, to change the timing of delivery, or to change the locality for the information. These filters could be set by the user, could come from the physical location of the user (either when the request is entered or after the requested information is delivered) or would be derived from the context of the requested information.

For example, assume that a user wishes to stay at a particular hotel chain when traveling. The user could enter the hotel chain into a hand held device. As the user moves around the world, the user's display would continually change to reflect the address and phone number of the local hotel in that chain. In this same manner, the delivery of TV programming would be adjusted to match the time zone of the location where the program is being delivered, regardless of where the request came from. Therefore, a user traveling in one city could request that a particular program be recorded at a particular time on his/her home TV in another city, or the user could view the program guide, including proper times, for one city while traveling in another city in a different time zone.

FIGURE 6 shows an embodiment of the system and method of operation at the information provider site where boxes 601, 602 603 hunt for flags requesting the type of information that the provider has available. This hunt can be made periodically on the Internet to all users of the Internet or to specific sites which would be acting as intermediaries.

When a flag has been found, box 604 provides the permission level of the information provider that is required and checks box 605 to determine if a match exists. If a match exists, then the system either goes to interactive session, box 517, as discussed previously with respect to FIGURE 5, or goes directly to box 518, or to box 519, depending on the operation of the system. If there is no match, and when matches have been handled, the system continues the hunt for flags.

Box 601 can be bypassed in situations where external information is made available telling the system that there is a flag set. For example, in the TV system described above, the user would have its information uploaded, perhaps once every 24 hours, by a telephone call from the user to a remote location. When the remote location, such as location 14, FIGURE 1, determines that a user desires a certain program or other information, the remote site then activates the various information providers, via box 606, thereby launching the program to see if and when information is available.

FIGURE 7 shows a typical scenario where a digital recorder system such as shown in FIGURE 1 is used between the user and the central system. Box 701 at the central system receives a call from each remote recorder on a periodic basis. Box 702 checks to see if data has been received from the user. If not, then the system via box 703 proceeds with its regular download of program data. If there are requests received from the user, then the system uploads and stores the user request via box 704. As discussed previously, box 705 passes the user request to other information sources (such as to box 606, FIGURE 6), if necessary, or simply stores the information for future comparison to programs that will become available at some time in the future.

Note also that while in the TV system usually it would be specific programs that are requested, the user might request different types of data. For example, the user could ask for a program listing for next month, or could request a list of music which is available, or a list of future music. Also, the information requested by the user via the TV system need not be limited to entertainment but could be general information requests that could be returned via a PC or via the TV screen.

In FIGURE 8 the central TV system, such as shown in FIGURE 1, receives updated information content, such as movies, programs, other information, as well as channel information, from various content providers. The system then checks its data base to see if any user is waiting for this information. This is accomplished via box 802. If no user is waiting for the information, then the system proceeds with its regular downloaded schedule with respect to the users via box 803.

If it is determined that there is a data request from any particular user or set of users that pertains to the new information, then the system via box 804 determines if there is time to wait until the next scheduled user update before providing the information to the user. This would typically be the situation since the system typically stores several weeks of information and that information would have been available had the user selected a movie or program that was known to be available. However, some situations are such that the requested information could be inserted because of user demand and thus the system would have to initiate a message and update the user immediately and set the user's recorder, if necessary, via box 807. This message could be a telephone call, an e-mail message, or simply setting the user's recorder and would not wait until the scheduled call.

One example of this type of immediate update would be if the user had selected sports programs, such as, for example, the Stanley Cup series where each game would be allocated a three hour time interval. The user could also have set a flag saying that he/she wanted the recording time extended if a particular game took longer than three hours. If the system determined that the game is going to last longer than three hours, the system could initiate a message to delay ending the record time for that user until a separate signal is sent indicating

that the game is over. Under this scenario, if a network changes its schedule at the last minute or adds information, that information could be made available to specific users depending upon the flags that have been set by each user.

Thus, if a user has scheduled a particular movie for 6 p.m. on Sunday and the football game which preceded the movie was not over until 6:15, the user's system could be notified and the recorder changed to reflect the correct recording time. In a situation where there is time to wait until the next scheduled update, box 806 sets the user's local recorder to record information as per the stored request if that is the desired result, and in box 807 notifies the user via one or more methods and sets the user's recorder again if necessary.

While the invention has been discussed in terms of a situation where a user simply "flags" desired information for pick up by an information provider, in actual use a person desiring information, such as from the Internet or from an entertainment guide or from any other source, could first contact that source, or set of sources. If the requesting user failed in his/her attempt to obtain information, or to schedule a program or to obtain tickets (or anything else desired) then that requesting user could, if desired, leave a "flag" with the desired information. This would allow providers to find the "flag" and deliver the desired information at a later time.

Note also that while a TV system and an Internet system have been shown for illustrative purposes, any other type of information retrieval system could be used. Thus, a wireless network or a pager network or even a private network could employ the concepts disclosed. For example, an insurance company network, a referral network or even a pharmacy network could be arranged to allow customers (doctors, patients, third parties, etc.) to post diagnosis, Rx questions, medical questions, referral issues and these would be answered when the information became available.

One example might be that a user of a particular medicine could post that information and request updates on side effects of the drug. Any provider, anywhere in the world, could, from time to time, provide such information. People could seek information on a particular treatment or on a particular doctor or hospital or business and, as that information became

available, would receive replies from anyone having such information. As discussed above, the requesting party could set flag permission levels which could control who (and under what circumstances) someone could “see” the request and/or provide responses thereto.

Although the present invention and its advantages have been described in detail, it should be understood that various changes, substitutions and alterations can be made herein without departing from the spirit and scope of the invention as defined by the appended claims. Moreover, the scope of the present application is not intended to be limited to the particular embodiments of the process, machine, manufacture, composition of matter, means, methods and steps described in the specification. As one of ordinary skill in the art will readily appreciate from the disclosure of the present invention, processes, machines, manufacture, compositions of matter, means, methods, or steps, presently existing or later to be developed that perform substantially the same function or achieve substantially the same result as the corresponding embodiments described herein may be utilized according to the present invention. Accordingly, the appended claims are intended to include within their scope such processes, machines, manufacture, compositions of matter, means, methods, or steps.



## WHAT IS CLAIMED IS:

1. A method of delivering information to a requesting user, said method comprising the steps of:

recording a request from a user pertaining to information content desired by said user;  
accessing said recorded request by any information provider; and

5 determining by said accessing information provider whether or not the information said accessing provider has control of matches the information content requested by said user.

2. The method of claim 1 wherein said accessing information supplier accesses said information via the Internet.

3. The method of claim 1 wherein said accessing information supplier accesses said information via a connection from said provider directly to said user.

4. The method of claim 1 wherein said recording step includes providing information by the user controlling the accessing of such requests by third parties.

5. The method of claim 1 further including the step of:  
under at least partial control of said determining step delivering the information desired by said user.

6. The method of claim 5 wherein said delivering step includes the step of:  
interacting between said accessing provider and said user as to the nature of the information to be delivered.

7. The method of claim 6 wherein said interacting is selected from the list including:  
time of delivery, media for delivery, content of delivery, location for delivery, follow  
up after delivery, payment information, respective obligation requirements, comparing access  
permissions.

8. The method of claim 6 wherein said interacting step can occur in a media different  
from the media under which said information is delivered.

9. The method of claim 5 wherein said delivering step includes the step of:  
making adjustments for one or more factors selected from the list including time,  
location, media.

10. The method of claim 9 wherein said adjustment is made based on the context of  
the desired information.

11. The method of claim 9 wherein said adjustment is made based on the location of  
the user.

12. The method of claim 1 wherein said information to be delivered is entertainment  
media.

13. The method of claim 1 wherein said information is recorded local to said user and  
from time to time transmitted to a remote location.

14. The method of claim 1 wherein said information is recorded locally and accessible from time to time from remote locations by said accessing providers.

15. The method of claim 1 wherein said information is recorded locally and sent to one or more remote locations for accessing by said accessing providers.

16. The method of claim 1 wherein said information is initially recorded at a location remote from said user.

17. The method of claim 16 wherein said recorded information is available for accessing by said accessing providers at one or more locations remote from said user.

18. The method of claim 1 wherein the information desired by said user is not currently available.

19. The method of claim 1 wherein the information desired pertains to future events not scheduled at the time said request is recorded.

20. The system of delivering information to a requesting user, said system comprising:

means for recording a request from a user pertaining to information content desired by said user;

5 means for accessing said recorded request by any information provider; and

means for determining by said accessing information provider whether or not the information said accessing provider has control of matches the information content requested by said user.

21. The system of claim 20 further including:

means operable under at least partial control of said determining means for delivering the information desired by said user.

22. The system of claim 21 wherein said delivering means includes:

means for interacting between said accessing provider and said user for determining the nature of the information to be delivered.

23. The system of claim 21 wherein said delivering means includes:

means for making adjustments for factors selected from the list including time, location, media.

24. The system of claim 23 wherein said adjustment is made based on the context of the desired information.

25. The system of claim 23 wherein said adjustment is made based on the location of the user.

26. The system of claim 20 wherein said accessing means includes:  
means for matching a permission level of a recorded request against a permission level of an accessing party.

27. A method for allowing a TV user to receive programs desired by that user, said method comprising the steps of:

accepting from said user information pertaining to a program desired to be viewed by said user;

5 matching said accepted information against a list of known programs currently scheduled to be delivered;

informing the user as to when said programs will be delivered; and

allowing the viewer to receive said programs at the informed time.

28. The method of claim 27 wherein said information is selected from the list including future programs, past programs, past events, program concepts, biographies, actors, travelogues, subject matter, movies, concerts, performers, time frames, sitcoms, sports, affinity programs, historical figures, news events.

29. The method of claim 27 further comprising the step of:  
upon a non-match condition making said user request available to at least one content provider.

30. The method of claim 29 further comprising the step of:  
delivering programs to said user from said content provider which match said accepted descriptive material.

31. The method of claim 29 further comprising the step of:

interacting between said at least one content provider and said user to deliver content containing said descriptive material to said user.

32. The method of claim 27 further comprising the step of:

upon a non-match condition continuing to match said accepted material against future lists of programs scheduled to be delivered.

33. The method of claim 27 wherein said descriptive material is selected from the list including future programs, past programs, past events, program concepts, biographies, actors, travelogues, subject matter, movies, concerts, performers, time frames, sitcoms, sports, affinity programs, historical figures, news events.

34. The method of claim 27 further comprising the step of:

enabling a recorder at said user's location to record said programs when matched ones of said programs are delivered.

35. The method of claim 34 further comprising the step of:

adjusting the timing of the recording in accordance with the location of the user.

36. The method of claim 34 further comprising the step of:

adjusting the recording time at said user's location in accordance with information concerning the actual transmission times of programs being recorded.

37. The method of claim 27 wherein said matching step includes the step of:

comparing a provider's identity against a permission level set by said TV user.

38. A system for delivering entertainment programs to a user, said system comprising:

means for allowing said user to input and store desired programs;

means operative from time to time for accessing stored ones of said desired programs;

5 means for determining which, if any, of said stored desired programs are currently available to said user; and

means controlled in part by said accessing means for delivering to said user one or more of said stored desired programs which were determined not to have been currently available to said user, after said programs are determined to be available.

39. The system of claim 38 wherein said delivering means includes means for:

allowing at least one program provider to review said stored list to determine if said program provider can deliver to said user one or more of said desired stored programs.

40. The system of claim 39 wherein said allowing means is further operative to allow one or more program providers to review said stored list for periods of time.

41. The system of claim 39 wherein said accessing means is at a first location and said program provider is at a second location remote from said accessing means.

42. The system of claim 38 wherein said programs are selected from the list including future programs, past programs, past events, program concepts, biographies, actors, travelogues, subject matter, movies, concerts, performers, time frames, sitcoms, sports, affinity programs, historical figures, news events.



43. The system of claim 38 further including:  
means for controlling recording times of delivered ones of said desired programs in accordance with the actual delivered time of such program at a user's location.

44. The system for providing information to a user, said information available over a network, said system comprising:

means for allowing said user to input and store an abstract of the desired information;

means operative from time to time for allowing any party other than said user to have  
5 access to said abstract of said desired information; and

means for allowing those of said other parties having information fulfilling said abstracted information to deliver to said user said fulfilling information.

45. The system of claim 44 wherein said fulfilling information was not available at the time said user stored said abstract of said desired information.

46. The system of claim 44 wherein said delivery allowing means includes means for interacting between the user and said accessing parties to determine one or more of the following, scope of the information content to deliver, time of delivery, mode of delivery, location of delivery, cost of the information, respective liabilities of the parties with respect to  
5 the delivered information, limitations on the use of said delivered information.

47. The system of claim 44 wherein said allowing means includes flagging certain data at said user's location.

48. The system of claim 44 wherein said allowing means includes storing said inputted abstracted desired information at at least one site remote from said user.

49. The system of claim 44 wherein said delivering means includes means for modifying the information in accordance with the user's location.

50. The system of claim 44 wherein said delivering means includes means for delivering the information in a media context consistent with the user's ability to receive the information at the time of delivery.

51. The system of claim 44 wherein said system allowing means includes means for controlling which set of parties may access said desired information.

52. The method of delivering information from any of a plurality of information sources to an information seeker wherein each said information seeker has caused to be remembered abstracts of information being sought by said information seeker, said method comprising the steps of:

5 searching from time to time by said information sources a plurality of said information seekers to determine whether information available to at least one of said sources matches the abstracts of sought information; and

notifying said information seeker that at least one match has been found.

53. The method of delivering information as set forth in claim 52 wherein said remembered information is searchable by said information sources for a period of time.

54. The method of delivering information as set forth in claim 53 wherein said information is communicated as a result of an interactive exchange between said source and said seeker.

55. The method of delivering information as set forth in claim 52 wherein the information is communicated from a third party to said information seeker under at least partial control of said information source.

56. The method of delivering information as set forth in claim 55 wherein said information is communicated as a result of an interactive exchange between said third party and said seeker.

57. The method of delivering information as set forth in claim 52 wherein the information is communicated to a location designated by said information seeker.

58. The method of delivering information as set forth in claim 52 further comprising the steps of:

communicating from said information source to said information seeker the location to where said sought information is to be found.

59. The method of delivering information as set forth in claim 58 further comprising the steps of:

downloading said sought information under control of said information seeker using said communicated information from said information source.

60. The method of claim 52 wherein said searching step includes the step of:  
matching permission levels between said information seekers and said information sources.

## RECIPIENT SELECTION OF INFORMATION TO BE SUBSEQUENTLY DELIVERED

## ABSTRACT OF THE DISCLOSURE

Users may record abstracts of information that they desire and information providers may access the recorded information abstracts from time to time so as to provide the information content that matches the requested information. In one embodiment, the user may select a TV program (or movie) that is not currently available and then at a time subsequent thereto that program is made available to the user, either privately, or over the public network. In another embodiment, users of the Internet may record information requests. Information providers may then access these requests from time to time and provide the requested information, even if the information had not been available at the time the request was initially posted. Prior to delivery of the information content the parties, if desired, may negotiate when and how delivery will occur, how much information will be provided, the cost of the information and the responsibilities of each of the parties pertaining to that information. The information abstract may be stored local to the user or at one or more central sites.

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FIG. 1

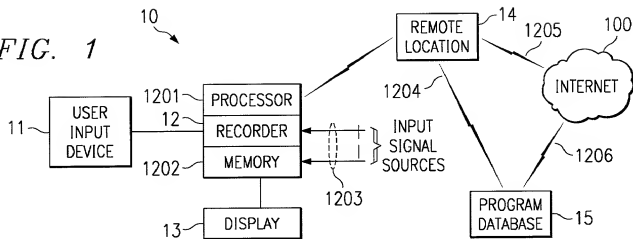


FIG. 2

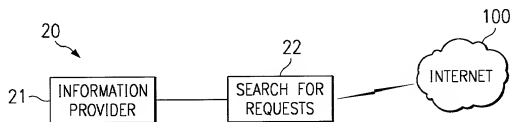


FIG. 3

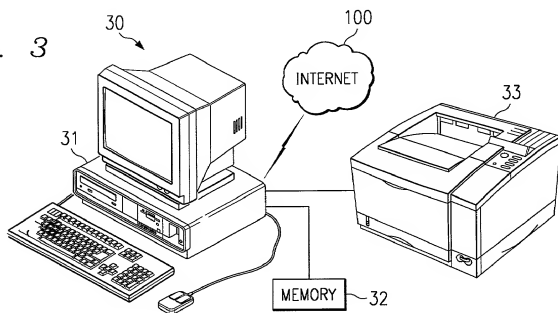
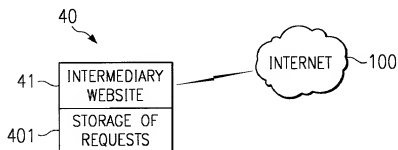


FIG. 4



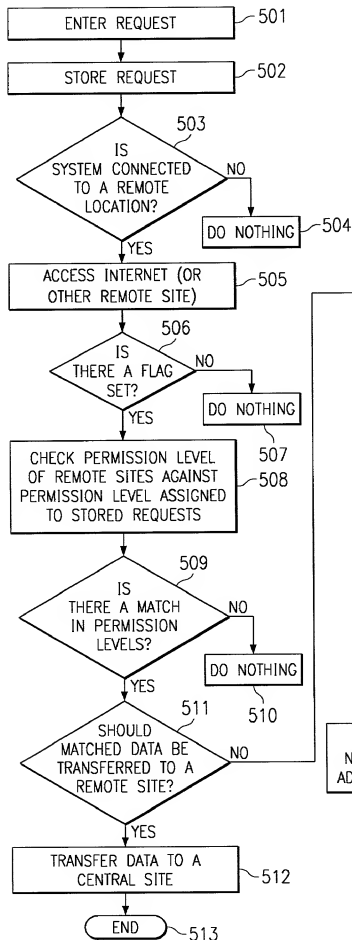


FIG. 5

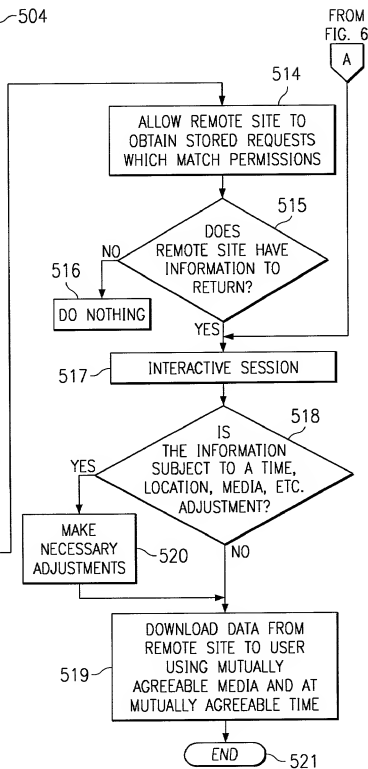




FIG. 6

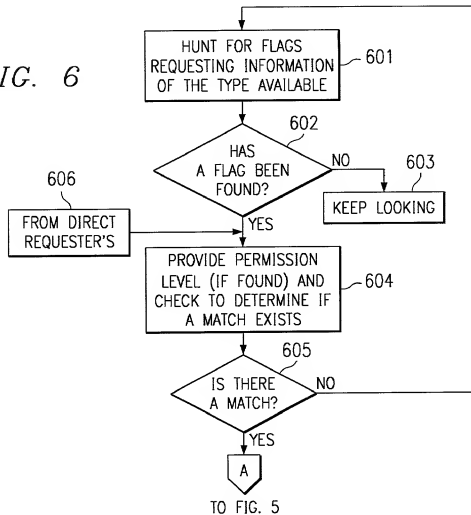


FIG. 7

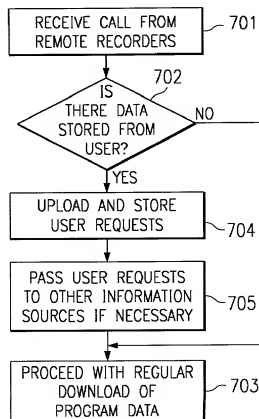
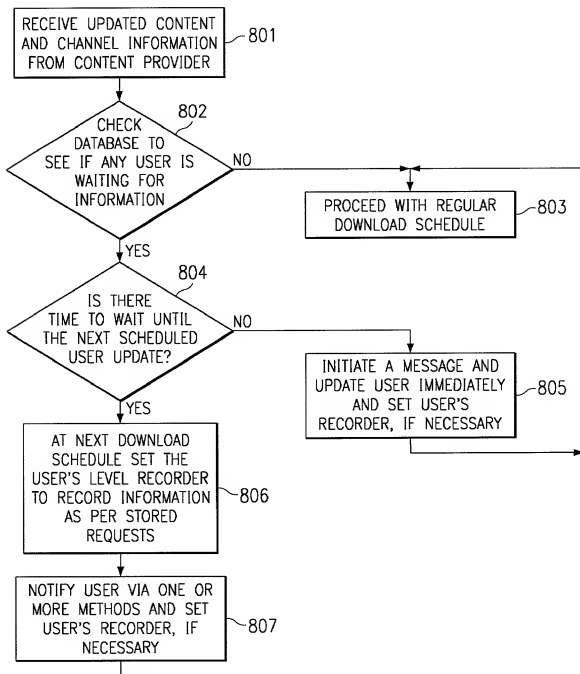


FIG. 8



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**COMBINED DECLARATION AND POWER OF ATTORNEY**

---

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,  
CONTINUATION, OR C-I-P)

---

As a below named inventor, I hereby declare that:

**TYPE OF DECLARATION**

This declaration is of the following type:

- ☒ original.
- ☐ design.
- ☐ supplemental.
- ☐ national stage of PCT.
- ☐ divisional.
- ☐ continuation.
- ☐ continuation-in-part (C-I-P).

**INVENTORSHIP IDENTIFICATION**

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor (*if only one name is listed below*) or an original, first and joint inventor (*if plural names are listed below*) of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

**TITLE OF INVENTION****RECIPIENT SELECTION OF INFORMATION TO BE SUBSEQUENTLY DELIVERED****SPECIFICATION IDENTIFICATION**

The specification of which:

- (a) ☒ is attached hereto.
- (b) ☐ was filed on \_\_\_\_\_, as ☐ Serial No. 0 / \_\_\_\_\_ or  
☐ \_\_\_\_\_ and was amended on \_\_\_\_\_ (*if applicable*).
- (c) ☐ was described and claimed in PCT International Application No. \_\_\_\_\_ filed on  
\_\_\_\_\_ and as amended under PCT Article 19 on \_\_\_\_\_ (*if any*).

**SUPPLEMENTAL DECLARATION (37 CFR 1.67(b))**

- ☐ I hereby declare that the subject matter of the
- ☐ attached amendment
- ☐ amendment filed on \_\_\_\_\_.

was part of my/our invention and was invented before the filing date of the original application, above identified, for such invention.

**ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR**

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56,

- ☐ in compliance with this duty, there is attached an information disclosure statement, in accordance with 37 CFR 1.98.

**PRIORITY CLAIM (35 U.S.C. § 119(a)-(d))**

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

- (d) ☒ no such applications have been filed.
- (e) ☐ such applications have been filed as follows.

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION  
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING DAY, MONTH, YEAR	PRIORITY CLAIMED UNDER 35 USC 119	
			<input type="checkbox"/> Yes	<input type="checkbox"/> No
			<input type="checkbox"/> Yes	<input type="checkbox"/> No
			<input type="checkbox"/> Yes	<input type="checkbox"/> No

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)**  
(35 U.S.C. § 119(e))

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

PROVISIONAL APPLICATION NUMBER	FILING DATE
_____/_____/_____	____/____/____
_____/_____/_____	____/____/____
_____/_____/_____	____/____/____

**CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S)**  
**UNDER 35 U.S.C. § 120**

☐ I hereby claim the benefit under Title 35, United States Code § 120 of any United States application(s) or § 365(b) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior U.S. or PCT international application in the manner provided by the first paragraph of Title 35, U.S.C. § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

APPLICATION SERIAL	FILING DATE	STATUS

**ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS**  
**(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

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**POWER OF ATTORNEY**

I hereby appoint the following practitioner(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

David H. Tannenbaum, Reg. No. 24,745;  
Michael A. Papalas, Reg. No. 40,381;  
R. Ross Viguier, Reg. No. 42,203;  
Michael J. Fogarty, III, Reg. No. 42,541;  
Jody Bishop, Reg. No. 44,034;  
Thomas J. Meaney, Reg. No. 41,990;  
Matthew Jones, Reg. No. 44,810 and  
William B. Tiffany, Reg. No. 41,347.

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(214) 855-8333


**DECLARATION**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**SIGNATURE(S)**

NOTE: Carefully indicate the family (or last) name, as it should appear on the filing receipt and all other document.

Full name of sole or first inventor: **David H. Tannenbaum**

Inventor's signature: 

Country of Citizenship: U.S.

Date: 7-26-00

Residence: 2801 Thomas Avenue, Dallas, Texas 75204

Post Office Address: 2801 Thomas Avenue, Dallas, Texas 75204